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## PrimeTimes Newsletter, Summer 2013

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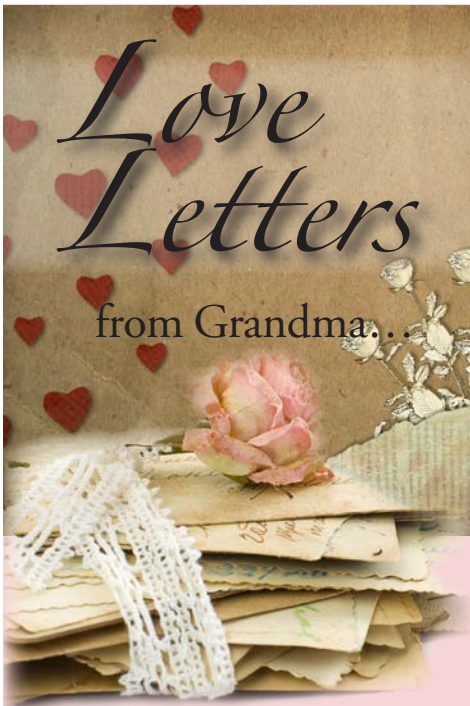
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# PrimeTimes

COLLEGE OF SCIENCE • OFFICE OF LIFESPAN STUDIES • COASTAL CAROLINA UNIVERSITY

SUMMER 2013



*By Bridgette Johnson*

It's not often that I sit myself down for a good old cry, but this past week, while cleaning out my closet, I came across a few little things rubber-banded together and stuffed down in a bag full of my college keepsakes...love letters from my Grandma. Though the tears came a'running, they were good tears – good solid reflections of the woman who loved me no matter what I ever did or the amounts of mischief I could find.

I've read these letters many, many times since her death. Each time, I hear her voice and see her face, but what I remember most are her hands...the ones that she would wrap around mine to squeeze three times meaning 'I Love You' and the hands that lovingly wrote these sweet little hellos to me. But I guess what struck

*...continued on page 14*



*By Sharon Thompson, Ed.D., CHES, Professor of Health Promotion, Coastal Carolina University*

Although we are all born liking sweet tastes, actual preferred level of sweetness varies quite widely from person to person. Taste perception and food preference depend on many complex factors: number of papillae or taste buds, type of taste receptors, and gene sequencing of molecules that process the transfer of genetic material from one cell to another. Taste perception may also be influenced by temperature, as some people report a clear sweet sensation from warming the front of the tongue, while a sour or salty sensation may occur from cooling this region.

Since added sugars usually provide insignificant amounts of vitamins, minerals and other essential nutrients, health-related agencies have devised recommendations to guide us on maximum daily intake of added sugars. The Institute of Medicine advises that we not exceed 25 percent of total calories consumed per day from added sugar. For an adult with an intake of 2,000 calories a day, this would amount to no more than 500 calories of added sugars per day. The American Heart Association recommends much stricter guidelines

on added sugar consumption: women and men should eat or drink no more than 100 and 150 calories per day, respectively, from added sugars. The World Health Organization recommends that added sugars should comprise 10 percent or less of daily calories. Using the 2,000 calorie a day example provided earlier, this would amount to no more than 200 calories from added sugars per day.

In America there is much talk of waging war against obesity, yet part of the struggle stems from the fact that humans enjoy the pleasure of sweet foods. This has led to the birth of several new, low/no calorie artificial sweeteners hitting the U.S. market through GRAS status (which means they are "generally regarded as safe"). Two of the most recent ones to be approved via this status, Stevia and Luo han guo, will be discussed in this article. The two artificial sweeteners highlighted here are extracted from plants and have been used in other countries for hundreds of years without ill effects.

*...continued on page 8*



# SECURING A RETIREMENT PORTFOLIO

*By Norman F. Whiteley*

I'm sure many retirees have heard and related to that old Will Rogers quote that went, "I am more concerned about the return of my money than the return on my money." Preserving retirement nest eggs is one of the primary financial objectives for those wishing to enjoy a secure retirement. Today, however, returns from the traditionally "safe" investment havens like CDs and money markets have become so miniscule compared to inflation that holding all assets in them can potentially be one of the riskiest options of all. The high volatility in the stock market has made that a scary alternative, and frequent talk of bond "bubbles" doesn't make that option much more appealing. Furthermore, those seeking refuge in fixed annuities find that, in return for the guarantee provided, they must pay significant fees, often including extra for insurance they don't need, and forego the growth required to make the nest egg income sufficient to meet their increasing needs over time. What then is a retiree to do?

All investing involves risk. Managing that risk is the key to investing success. Unfortunately, there is not one simple formula that is suited to every person. Each person has different objectives, different time horizons, different levels of risk tolerance and different levels of knowledge about finance and investing. Some people will be able to sort out these criteria on their own and develop a suitable risk-management strategy for themselves; others may need help from an adviser. For those in the latter category, it's important to find an adviser with whom they can relate, who is trustworthy with proper credentials and free of conflicts of interest.

In most cases retirees will want to structure their portfolios with a combination of stocks, bonds and cash. The relative amounts of each and the sub-categories will generally depend on the time horizon, objectives and risk tolerance of the investor. While stocks would be generally considered the riskiest of the three categories, they will usually provide the best long-term growth, and that growth is needed to keep ahead of inflation. The risk can be moderated by selecting a diversified mix of "value" stocks composed of large, well-established, dividend-paying companies with long histories of stable, positive performance. These may not provide the highest growth, but they will generally be less volatile and more stable on the downside than more risky "growth" stocks. In addition to direct purchase, these value stocks may be purchased either as Exchange Traded Funds (ETFs) or traditional mutual funds. In the case of traditional funds, however, it would be generally advisable to acquire "no-load" funds with low operating costs. A general guideline for the operating costs I would suggest is less than 0.5 percent for ETFs or index funds and less than 1.0 percent for actively managed funds. In the case of direct purchase of stocks or ETFs, an investor could use a "stop loss" order to protect downside losses. With today's high market volatility, however, it may be difficult to avoid getting sold out prematurely. An investor should be prepared to keep any investment in the stock portion of the portfolio for at least five years and preferably 10. If you'll need the money sooner than that, it probably should be invested in CDs, Money Markets or short-term investment grade bonds.



“High Yield” bonds have become popular in recent years due to the paucity of investment grade bond yields. With increased yield, of course, comes increased risk. This is a case where most retirees would do well to focus on Will Roger’s admonition and stress return “of” capital. If purchasing bond funds, including ETFs, I would suggest that, for most retirees, keeping to investment grade bonds with short to intermediate maturities for the major part of the bond portfolio may be most prudent in the current environment.

As far as the relative amounts of bonds versus stocks, factors such as time horizon and risk tolerance are important considerations. It will be necessary to rebalance at least annually. Under normal conditions, stock and bond values should move in opposite directions; however, with Fed action artificially manipulating interest rates, it’s difficult to predict which way markets will move when interest rates begin to rise. As a result of the still unsettled economy, keeping enough cash on hand to meet shorter-term needs is important.

While interest rates from most local banks are little to almost nothing, there are rates available from good quality online banks with FDIC-insured money markets and CDs that approach or even exceed the yields available from short- to intermediate-term bonds. You may wish to check with Bankrate.com for a list of those banks with current rates.

The suggestions above are designed for conservative investors who wish to emphasize preservation of capital while providing reasonable returns. Is it possible that the investment values will drop at some point? The answer is...certainly. While historically they have always recovered, as they did from the 2007-2008 downturns, there is no way to predict absolutely what will happen in the future. For individuals with insufficient risk tolerance or time horizon to ride through these downturns, the best option may be to seek the relatively “safe” cash-oriented investments or high quality annuities, despite the costs or low returns. §

*Norm Whiteley publishes a free monthly online investment newsletter and teaches classes for the Coastal Carolina University Osher Lifelong Learning Institute. He is a past president of Lifelong Learning. Whiteley started a website for the OLLI Investor Education Club dealing with investing questions or expertise sharing at [groups.google.com/group/investment-fundamentals](https://groups.google.com/group/investment-fundamentals). He can be reached at [nwhiteley@sc.rr.com](mailto:nwhiteley@sc.rr.com).*





# What Can Aquatic Exercise Do For You?



*By Tara Josey, Associate Director, Campus Recreation, Coastal Carolina University*

**When was the  
last time  
you got into a  
swimming pool?**

**How did it  
make you feel  
to simply  
*submerge*  
your body in  
the water?**

There is so much information available regarding exercise: different types, different intensities, how long, how much. As we age, it often just simply comes down to simple yet functional activity that allows us to maintain our normal daily functions. For example, if we cannot get in and out of a chair, that can be an issue. If we can't bend down to pick something up, that can be an issue. If we are not able to get back up from the floor if we fall down, that can be an issue. There are many reasons we should be incorporating activity into our daily lives that promotes movement, balance and strength. Getting this type of activity into our days will, in turn, help us get stronger, allowing us to have a better quality of life and more independence.

Activity on land can sometimes cause pain in the joints and pose challenges to our balance. Activity in a swimming pool has many benefits – benefits that can increase strength and balance without causing stress on your joints and body. The Aquatic Exercise Association provides great explanations for why water exercise is different than land exercise and the many benefits that it can provide.

*Tara Josey, Associate Director of Campus Recreation,  
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# How is Water Exercise Different?

## BUOYANCY

In the water your body is buoyant and the impact to the joints during exercise is significantly less than on land. Depending upon the water depth, your body “weight” is reduced in the pool due to lessened gravitational forces.

- A body immersed to the neck bears approximately 10 percent of its body weight.
- A body immersed to the chest bears approximately 25 to 35 percent of its body weight.
- A body immersed to the waist bears approximately 50 percent of its body weight.

A properly designed program in the water provides a highly effective workout in a safe and gentle environment due to the principle of buoyancy. Shallow water programs are generally best performed in water that is about mid-chest depth for maximum comfort, control of movement and optimum toning benefits for the upper body.

## RESISTANCE

Muscles must work against resistance to become developed and toned. Water provides substantially more resistance than air, because water is more viscous than air, making each movement in the pool more challenging to the muscles. Also, muscles typically work in pairs; i.e. biceps and triceps or quadriceps and hamstrings. When you move your body, or your limbs, through the water, you are always encountering resistance. This helps to provide a more balanced workout as opposing muscles are involved, unlike on land where you typically need to reposition the body, or select a separate exercise, to provide adequate stimulation to both muscles of the pair.

*NOTE:* If you incorporate weighted, buoyant or rubberized equipment, these muscle actions will change and it once again becomes necessary to target both muscles of a pair with separate exercises.

## COOLING EFFECT

Water cools more efficiently than air, so when exercising in the water the body is able to eliminate excess heat more effectively. This is not to say that you will not sweat during a workout in the pool, but water helps prevent overheating and washes away the perspiration as you exercise. Because the water cools the body

quickly, it is imperative that you begin every workout with a “thermal warm-up” designed to elevate the body’s core temperature, warm the muscles and prepare the joints for the increased workload to come. Even at the recommended temperature of 83-86 degrees Fahrenheit (28-30 degrees Celsius), a proper warm-up is necessary to prevent injury and provide comfort.

*NOTE:* Special populations and specialty training may require deviations from this recommended range.

## HEART RATES

Heart rate responses differ when exercising in the water than when exercising on land. Typically, aquatic exercisers experience a reduced heart rate response (i.e. lowered pulse rate), but the water should not be considered less effective. Studies have shown that oxygen consumption (the true measure of the cardiovascular benefits) is comparable to a similar program on land, although the heart rate response is lower. Several factors, some of which have been previously mentioned, influence the exercising heart rate when submerged in the water to mid-chest:

- Lessened gravity allows a more efficient return of blood to the heart from the extremities. The cooling effect of water reduces the workload on the heart. (One function of the heart is to keep the body cool during sustained exercise.)
- Hydrostatic pressure, the pressure that the water exerts on the body while submerged, assists in blood flow and improves the exchange of oxygen into the blood. §



# BBB SCAM WATCH...

## Door-To-Door Sales

*By Kathy Graham, President/CEO  
Better Business Bureau, Coastal Carolina Inc.*



The Better Business Bureau of Coastal Carolina would like to warn consumers of potential door-to-door scams that are making their way back into the area. One in particular is by a company called New Vision Sales. Complaints to BBB allege that once the consumers pay New Vision Sales for a magazine subscription, they never receive anything at all. BBB has not been able to contact this business; all mail to them has been returned, and the address given appears to be a UPS drop box location.

A classic scam is the door-to-door magazine sales. Typically, young men or women (ranging from late teens to early 20s) will come to your door, giving a sales pitch that may have to do with raising money for a trip overseas for their school. They may also say that they are raising money for their high school or college, or they are raising money to go to college. Who wants to deny a young person their dream of college? These salespeople may even have laminated ID badges to show you, along with a sad story. They might also tell you that they are being judged on how well they do with their presentation. Finally, the catch will come... you have to purchase something, which is usually a magazine subscription. Sadly, most consumers who end up giving their money away for those subscriptions will never receive a magazine or see their money again.

Other door-to-door scams might include salespeople claiming to be from an alarm company, cable or telephone company, roofing repair, driveway paving or home improvement.

Tips to avoid the door-to-door scam:

Don't let them in your house. While there are legitimate salespeople who still make door-to-door

visits, consumers should be very cautious and not allow unexpected guests into their home. If someone comes to your door who you do not know, you should ask who it is through a closed door. If it's a solicitor and you don't want to talk to them, simply tell them to leave. If you do open the door, don't open it wide and don't invite them in. They may say things like: "Can I use your phone to contact my sales manager?," "Can I get a glass of water?," "Can I use your bathroom?" or "It's really hot out here, can we go inside and talk where it's cool?"

If you feel that you are in danger, you should immediately call the local police department.

Pay attention and listen carefully to what they say. If you think that the salesperson may be lying, ask for the name of the school, company or association they are representing, along with contact information. Verify that this salesperson is actually associated with the group, and then verify that the company is legitimate by checking with the Better Business Bureau at [bbb.org](http://bbb.org) or by contacting S.C. Consumer Protection at [sconsumer.gov](http://sconsumer.gov) or N.C. Consumer Protection at [ncdoj.gov/consumer.aspx](http://ncdoj.gov/consumer.aspx).

Ask the salesperson to give you everything in writing, including return or warranty information. Tell him or her that you'd like to verify everything first, then get back to them. If you don't feel comfortable or see a neighbor being harassed by a salesperson, call the police.

Don't be pressured into anything. Salespeople will try using high-pressure sales techniques in order to get you to buy their product. Hold your position, and don't allow them to win you over with words like "this offer is only valid for today," or "I won't be in this area again." A door-to-door salesperson will try to keep you talking

so long that you'll finally wear down and say "yes." They hope that you will just "give in" so that you can get rid of them. The Federal Trade Commission's Three-Day Cooling-Off Rule gives customers three days to cancel purchases over \$25 that are made in their home or at a location that is not the seller's permanent place of business. Along with a receipt, salespeople should also include a completed cancellation form that customers can send to the company to cancel the agreement. By law, the company must give customers a refund within 10 days of receiving the cancellation notice.

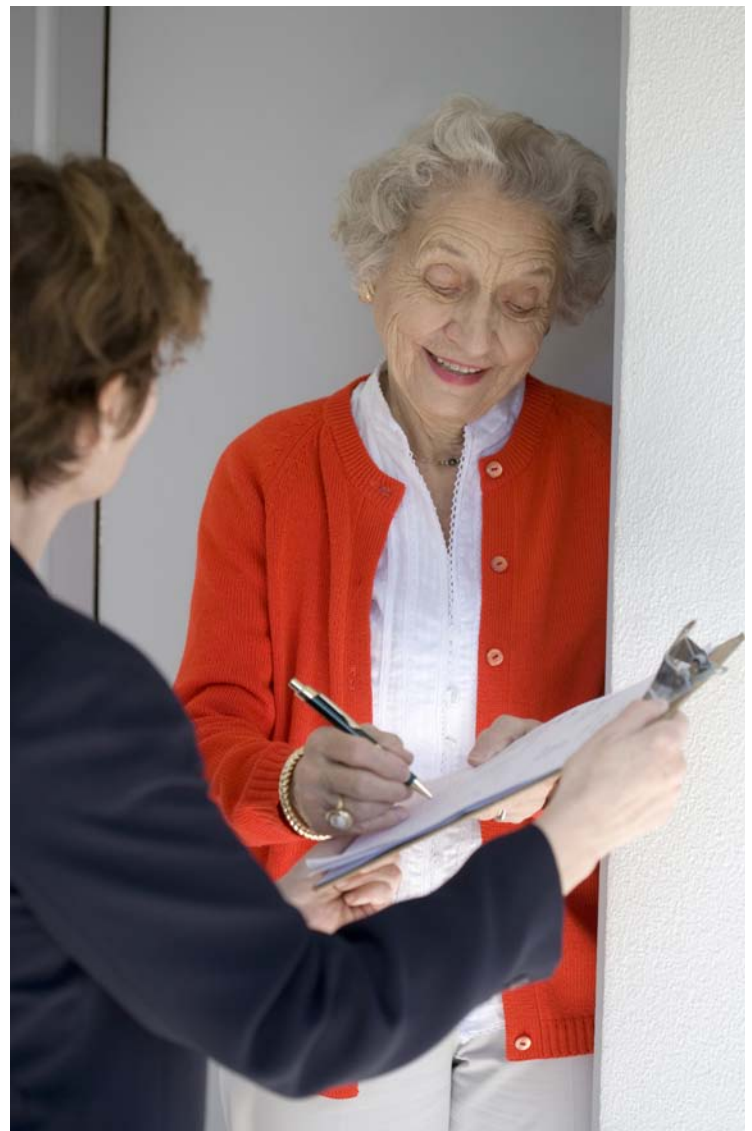
What to do if you have already been scammed:

- If you happen to have the company's address and telephone number, you should try contacting them first to cancel the subscription or services that you agreed to, and ask for a refund.
- If you paid cash for one of these door-to-door scams, there isn't much that can be done to retrieve your money since there is no way to trace it. If you paid by check, you can try contacting your bank and cancelling the check. You should also warn the bank that a potential scammer has your check, and you might want to change the account number.
- If you paid by credit or debit card, contact the bank or credit card issuer immediately. Explain to them what happened, and you might have to cancel the card. You may also want to continue to monitor charges to your card so you can dispute any purchases you did not make.
- If the company continues to contact you and demand payment after you've cancelled, send them copies of the cancellation letter along with a cease and desist letter. You may have to contact an attorney and threaten legal action if they continue to harass you by saying they will report you to a credit bureau.

You can contact and file a complaint with the Federal Trade Commission at: [ftccomplaintassistant.gov](http://ftccomplaintassistant.gov) or call toll-free, 1-877-FTC-HELP (1-877-382-4357); TTY: 1-866-653-4261.

You can file a complaint with the BBB by visiting our website at [bbb.org](http://bbb.org). \$

*Kathy Graham, President/CEO, Better Business Bureau, Coastal Carolina, Inc., can be reached at 843-488-0238, fax 843-488-0998 or email at [kathygraham@sc.rr.com](mailto:kathygraham@sc.rr.com).*





### ***Stevia***

The leaves of the plant *Stevia rebaudiana* are used to extract Rebaudioside A (often abbreviated Reb A), one of the naturally sweet chemicals in this plant. Stevia has been used for more than 200 years for culinary and medicinal purposes, mainly in South America. The compounds in the stevia plant have been approved for use in dietary supplements since 1995 in our country. In 2008 these purified products were granted GRAS status. Since then a number of sweeteners using Rebaudioside A have entered our marketplace.

Stevia's various glycosides are 200 to 300 times sweeter than table sugar. The product has no calories and has a glycemic index of zero. This is helpful for diabetics as consumption will not raise blood sugar. This plant is a member of the chrysanthemum family, so persons with allergies to the mums, marigolds, daisies or ragweed should avoid this sweetener as it may cause allergic reactions. The stevia plant can also be grown as an annual in South Carolina. Last spring, I purchased a few plants from a garden center in our area and found them easy to grow and found the leaves nice for garnishing. A few trade names for this sweetener that can be found in conventional grocery stores include Natvia, Truvia and Stevia in the Raw.

### ***Luo Han Guo***

Better known as swindle fruit or monk fruit extract, *luo han guo* is the common name for *Siraitia grosvenorii*. The fruit grows on a vine and is native to China. The *luo han guo* fruit is an old Chinese treatment for conditions related to bowel function that involve nausea. The intense sweetness found in this fruit is derived primarily from



a compound in the fruit named Mogroside V. The FDA granted this sweetener GRAS status in 2009. *Luo han guo* is quite similar to stevia in sweetness – being 150 to 300 times sweeter than sucrose. It is non-glycemic, contains no calories and will not raise blood sugar. Several trade names include Go Luo, Nectresse and Purefruit.

Stevia and *luo han guo* have not been found to have toxic effects; however, keep in mind they are new to the American marketplace. Because few processed food products on the U.S. market use stevia or *luo han guo* to sweeten foods for purchase, overuse of these two artificial sweeteners is not currently a problem.

In the future these products could have much more widespread food processing use as both are heat-stable. We have a tendency in our country to believe if a little bit is good, then more must be even better. As with all artificial sweeteners, whether they're in a lab or extracted from plants, moderation is important. Stevia, *luo han guo* or any other artificial sweetener approved for use in our country may affect some persons more than others. Just because the sweet chemicals extracted from stevia and *luo han guo* are from plants does not necessarily mean they are healthful for individuals.

The next time you are looking to sweeten your favorite iced or hot beverage, consider trying these sweeteners. Each brand tastes a little different due to differences in other ingredients they may be mixed with. Examine food label ingredients for stevia and *luo han guo* and also calorie count as some are mixed with sugar derivatives. \$

*Sharon Thompson can be reached at [thompson@coastal.edu](mailto:thompson@coastal.edu)*

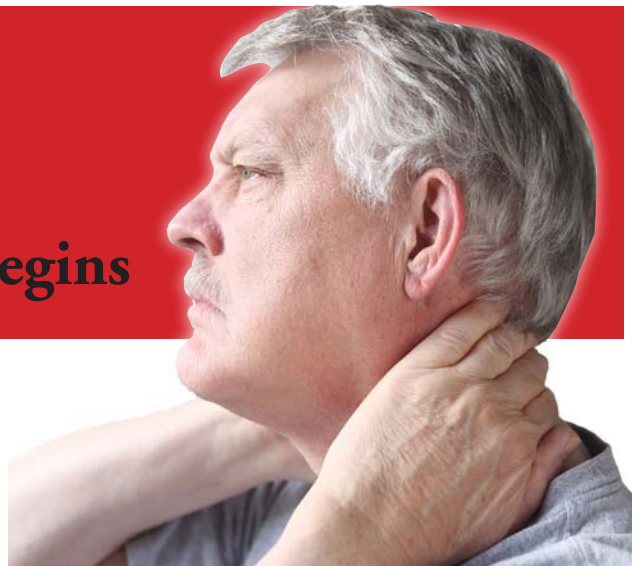


## **STEVIA PLANT?**

## **MONK FRUIT?**



# Push off that nagging **PAIN** before it begins



Here are tips from a recent issue of *BottomLines Burst of Energy* for shoving off pain that can bug us after sitting for a spell reading or writing, crosswording, Sudokuing or searching the web.

After hours of sitting, muscles tighten up and tight neck muscles can lead to painful tension headaches. There is a quick stretch you can try to keep the pain away. Start by sitting up straight and keeping your head level. Gently turn your head to the right as far as you comfortably can, hold this for 20-30 seconds (1, 2, 3, 4, etc.) and then repeat in the other direction. Do this several times, then relax.

Next, with your eyes looking forward, tilt your head toward your shoulder and hold for 20-30 seconds, then repeat the reverse way. Again, do this several times.

AND, just stand up for a minute and then return to what you were doing. The important thing to remember if you're going to continue sitting is to do the stretching once an hour.

Push that ache away! There are other stretching routines one can do for lower backs and legs just look them up on the computer. One place to look is [newsletters@news.bottomlinepubs.com](mailto:newsletters@news.bottomlinepubs.com). §



## Looking for **VOLUNTEERS**

**CCU's Department of Kinesiology, Recreation and Sports Studies is looking for individuals age 65 and older to participate in a study about balance, falls, functional performance and cognition.**

The study requires three or four visits to campus prior to beginning the six week balance training programs. These first visits will not be longer than an hour. Before committing to the study, participants are asked to review an explanation of the entire project so that questions can be answered. Volunteers are need to complete a series of balance and aerobic capacity tests along with questionnaires and tests related to health and cognition (brain function). Participants will be randomly assigned to perform six weeks of balance training using a Wii Fit Balance Board, or using Xbox Kinect video game. This study has been approved by the CCU Human Subjects Research Committee.

If you are interested and would like more information about the study, please contact one of the people listed below.

**Greg Martel, Ph.D.**

843-349-2957 or [gmartel@coastal.edu](mailto:gmartel@coastal.edu)

**Lisa Barella, Ph.D.**

843-349-4184 or [lbarella@coastal.edu](mailto:lbarella@coastal.edu)

**Stacey Beam**

843-349-2807 or [sbeam@coastal.edu](mailto:sbeam@coastal.edu) §

# The Myths of Wind Power

"Myths are like an air mattress.  
There's nothing in it and it's wonderfully  
comfortable. But deflation causes  
an uncomfortable jolt."

~ Anonymous

By Michael Latta, Ph.D., Associate Dean and Professor of Marketing, Coastal Carolina University

*"It ain't what people know that causes trouble; it's what they know that ain't so."* ~Josh Billings. Milton Friedman made this quote famous in his well-known book and PBS series titled "Free to Choose." Josh Billings was the pen name of 19th century American humorist Henry Wheeler Shaw, who was similar to Mark Twain though not as famous as Twain.

The proponents of wind power have created two myths: 1) wind farms create jobs, 2) wind farms have no cost downside. In other words, the South Carolina economy would benefit in two ways by installing wind turbines: creating good paying jobs and reducing energy costs because the wind blows for free. We see governors line up for wind power in Delaware and North Carolina. The Sun News recently ran a report (01/25/13) that N.C. Gov. Pat McCrory backs the most costly form of wind farms off the coast, citing estimates that "offshore winds could stimulate \$2 billion in new economic activity and create up to 10,000 jobs." As with most stories about offshore wind, no mention is made of how much money North Carolina taxpayers will have to pay both to subsidize the building/operating of the wind farm and then purchase the much higher cost per megawatt hour of electricity generated by the wind farm.

Renewable energy sources are always subsidized by governments. This is true of solar, wind, electric cars and ethanol. They also typically have unintended consequences such as dead birds and bats in the case of wind and actually taking more energy to create than they produce in the case of corn-based ethanol.

Denmark and Spain have been leaders in wind energy production. The International Energy Agency just published a comprehensive report, titled "The Past and Future Cost of Wind Energy."

Here are two highlights:

- In Spain, most of the "best" sites for wind energy were in place before 2004 with the trend today indicating installation of more and more capacity while the operating hours have decreased even with larger and larger rotor sizes coming online in higher and higher towers. Wind Turbine Generator installations have shown no learning curve, meaning they are not coming down in costs.

- In Denmark, there is overcapacity in manufacturing and it is moving out of the country with little drop in customer prices. Turbine rotors and towers are larger, and increasing capacity. With no confirmed reduction in prices per kilowatt hours generated.

Glenn R. Schleede from the Energy Market & Policy Analysis firm in Reston, Va., has prepared a comprehensive analysis of the actual cost factors involved in wind farms, titled "The True Cost of Electricity from Wind Power And Windmill 'Availability' Factors." He makes an important distinction in wind farm economics and focuses on the true cost of producing and delivering electricity from wind and not on the price paid when a utility buys electricity from a wind farm.

This is because prices paid by utilities often have no relationship to the true cost of producing power due to extensive government subsidies. In fact, when operating a wind farm, the value of tax breaks and subsidies are much larger than the income that a wind farm produces from the sale of electricity. Robert Driessen, author of "Eco-Imperialism: Green Power, Black Death," Merril Press, 2010, has noted that industrial wind energy fails every test. By taking tax revenues from productive sectors of the economy to provide expensive, unreliable electricity, it kills two to four jobs for every "green" job it creates.

Here in South Carolina, power company Scana and its partners are investing \$11 billion in two 1,100 megawatt nuclear reactors on 1,000 acres. To get the same amount of electricity out of a wind farm would require 1,700 turbines stretched across 200,000 acres, an upfront investment of \$8.8 billion, and back-up power. Nukes cost more upfront, last longer, provide reliable power, and emit no CO2. Natural gas power plants do not require any kind of taxpayer subsidies. Gas is plentiful and is "greener" than coal.

In general, there are three kinds of people: 1) those learning from mistakes others make, 2) those learning from their own mistakes, and 3) those who never learn. Persistence in the face of failure is an admirable trait, as long as you are spending your own money. Unfortunately, renewable energy companies are spending our tax money instead of their own because of government subsidies. It's time we learned from other people's mistakes and not make our own in wind power. Let's get off the air mattress and know what ain't so. \$

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**PrimeTimes NOTE:** The issues surrounding alternative energy are complex with multiple interpretations of economic and environmental data. The views and opinions stated by Professor Latta are his and do not necessarily represent the views of the Office of Lifespan Studies, College of Science or Coastal Carolina University. Professor Latta can be reached at 843-349-6476 or [mlatta@coastal.edu](mailto:mlatta@coastal.edu).



# Fruits and Veggies

## Nature's Natural Vitamin Supplements

*By Larissa Gedney, MS, RD, LD  
Clinical Nutrition Manager  
Conway Medical Center*

Travel down any health food aisle and you will find yourself inundated with rows and rows of vitamin supplements claiming to be the answer to all of your nagging health problems. Unfortunately, many of these supplements have not been evaluated or approved by the Food and Drug Administration (FDA), and some may contain levels higher than necessary or healthy.

Luckily, adequate levels of most vitamins can be obtained through a balanced consumption of fruits and vegetables.

**Vitamin A:** Vitamin A is an antioxidant that helps protect the skin and eyes and may improve immune function. Vitamin A has a toxic level of about 3,000 micrograms/day; however, this level is difficult to reach from food alone and is generally only a risk for individuals taking a vitamin A supplement. Vitamin A can be obtained from foods such as liver, beef, eggs, cheese, leafy-green vegetables, carrots, sweet potatoes and apricots.

**Vitamin C:** Vitamin C is well known for its immune function properties, helping with the formation of antibodies. It also plays a role in collagen synthesis, important for the formation of muscles, tendons and ligaments. Vitamin C is readily found in foods such as red bell peppers, oranges, grapefruits, spinach and strawberries.

**Vitamin D:** Vitamin D helps metabolize calcium, which is necessary for bone growth and maintenance. In addition to sun exposure, vitamin D can be obtained from fortified products, such as milk and orange juice, pink salmon and sardines.

**Vitamin E:** Vitamin E is an antioxidant that helps protect cell membranes. It may also help protect against the development of certain cancers and Alzheimer's disease. Vitamin E can be found in sunflower seeds, almonds, canola oil, sweet potatoes and hazelnuts.

**Vitamin K:** Vitamin K is a critical vitamin needed to help with blood clotting. Some individuals on certain anti-coagulant medications may need to monitor their vitamin K intake. Vitamin K is

most commonly found in leafy-green vegetables, broccoli and some oils such as soybean oil.

**The B-Vitamins:** The B-vitamins work in several ways in the body, working as a co-enzyme and helping with the synthesis and metabolism of energy-yielding nutrients, such as carbohydrates, fats and protein. Many of the B-vitamins are commonly found in fortified grain products. Niacin is also found in chicken, turkey, salmon and eggs. Vitamins B6 and B12 are predominately found in animal products, such as fish, beef, chicken and cheese, so vegetarians may need to supplement their diet with these vitamins if they do not consume any animal products.

You should always consult with your health-care provider before taking a nutritional supplement. Because vitamins are readily available in the safest form from foods, individuals should aim to meet their recommended nutrient needs through a well-balanced, healthful diet.

*Larissa Gedney can be reached at  
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at 843-347-8242.*



# The Comparison Game:

## Can Exergaming Elicit Similar Health Benefits as Traditional Physical Activity?

*By Will Lyerly, Ph.D., and Tim Meyler, MS, Department of Exercise Science and Sport Studies*

In recent years exergaming has grown in popularity, emerging from a recreational activity to a potential viable means of exercise. In fact, the amount of time spent playing video games is increasing with the average “gamer” being 35 years old who has been playing for 13 years. Besides the recreational aspect, there are several questions related to exergaming and its potential physiological benefits as well as motivation to participate in active video gaming. Exergaming has been researched within many diverse populations including, but not limited to, people of all ages, the healthy population and people with disabilities. Some research indicates that exergaming may have positive effects on general physical fitness, enhanced enjoyment during exercise, improved balance, increased physical activity and weight loss. But other studies contend that exergaming may not solicit physical activity levels high enough to meet current physical activity guidelines of the American College of Sports Medicine (ACSM), Centers for Disease Control (CDC), and Department of Health and Human Services to improve overall health in various populations. These current guidelines include being active at a moderate intensity (60 to 85 percent maximal heart rate) for 150 minutes a week.

Also, it appears that some types of exergaming may not be as good as traditional forms of exercise in terms of caloric expenditure. Due to various results from multiple studies, it is necessary to continue further research to determine what, if any, physiological and psychological responses exergaming may elicit.

Many researchers contend that exergaming is simply exercising while playing video games. While this definition is partly correct, exergaming or “active gaming” actually falls under two distinct categories: exergaming and interactive fitness. Exergaming activity involves movement by the player, while watching a video screen, to control the game. In other words, the player must act as a “human joystick” in order to successfully participate within the game. Examples of exergaming include Xbox Kinect, Xavix, Nintendo Wii and PlayStation Move. Interactive fitness does not involve a video screen but rather other electronic devices (i.e. lights, sounds, motors) that dictate the type of movement by the player involved. Examples of interactive fitness systems include Makato, 3-Kick, Sportwall, Treadwall and T-Wall.

The traditional exercise prescription involves a very structured regimen that includes exercise three to five days per week, for 20 to 60 minutes each session, and at an intensity of 60 to 85 percent of maximal heart rate. The traditional exercise prescription stresses relatively intense activity and often seems very intimidating to those who are sedentary. This approach has led to the misconception that one must exercise at a relatively intense level and in a structured exercise plan, such as described above, in order to receive health benefits. This misconception is a key part to the public’s perceived barriers to physical activity. This “misconception” has led many researchers to look for alternative modes of physical activity, which includes exergaming.







One mode of physical activity that has been understudied, in relation to its potential for health benefits, is exergaming. Tim Meyler, who is part of the Exercise and Sport Science (EXSS) department, has recently received funding for a pilot study to compare college-age adults' perceived health, reported physical activity, and cardiovascular measures following seven weeks of participating in exergaming verses traditional exercise.

The benefits associated with this study are numerous. We will not only be learning valuable information regarding the potential health benefits of exergaming in college-age individuals, but these findings should translate to all ages and abilities. This study will also give our CCU students an excellent learning experience in an emerging field of research. Our students will also become exposed to community-based and field-based research, in addition to the already established lab-based research. This hands-on experience will greatly improve their knowledge and give them valuable skills needed in the areas of research, professional advancement and social interaction. The CCU community will benefit by having a local research project aimed at increasing the health benefits, especially cardiovascular benefits, of individuals of all ages and abilities in a region that is among the top in the nation for risk of CVD, diabetes and obesity. §



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## *We want to hear from YOU!*

If you have comments or questions about articles in this issue, want to submit a letter to the editor, ask a question or make a comment, or if you would like to suggest appropriate subjects for consideration in future issues, the *PrimeTimes* staff wants to hear from you. If you want to be added to the *PrimeTimes* mailing list, just email, call, fax or write to let us know. Previous issues of *PrimeTimes* can be viewed at [coastal.edu/lifespan](http://coastal.edu/lifespan).

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such a crying chord with me last week were her references and stories about my mother, her daughter-in-law.

Her letters read, “I’ll have your Mama mail this for me tomorrow” or “she brought me supper,” or “I wish you could have seen your Mama...” My Mama. In each letter my Mama mailed for my Grandma, she would insert a short little note with a quick hello, like “I’m thinking about you and be careful, Love, your Mama.” Nothing fancy. Just the facts, ma’am. That’s my Mama. Cut and dry, and absolutely no frills.

When I come across stories that take me back to how my Mama used to be, I just have to stop and savor the memories. Today, my Mama struggles with Alzheimer’s disease and has for the past eight years. It’s a terribly ugly disease and one that surely doesn’t deserve its stay here. What we’d all do now to get a quick little note from my Mama. She dialed me on the phone a couple of Sundays ago and I had to catch my breath when I saw her name pop up on my caller ID. That’s something she hasn’t done in at least a year and I honestly thought she may never do again. It was one of those good days and one of those great moments. One of my Grandma’s stories depicted my Mama at her finest...it is a story of her love/hate relationship with a goat named Billy.

Billy was a roadside pick-up. My Daddy found him stranded on an Horry County back road and he loaded him up and brought him home to graze in our horse pasture. Surely he would do no harm to anyone or anything there. Billy was a large goat, and he learned to play basketball with my nephew Bobby. He liked to hip butt you if you got in his way. He even dared to sleep on top of my Mama’s car a time or two. But the one thing Billy enjoyed most was dining on my Mama’s pink rose bush.

He’d wait until it was in full bloom and somehow he would manage to get out of his pen and help himself to a belly full of sweet roses. And did I say that my Mama hated Billy with a passion? She’d chase him out of the yard with a broom handle and give him a good proper whack if he

got near that bush, and he always behaved and minded her demands – until it was in full bloom again. One letter told about my sister Linda attempting to chase Billy away from the rose bush. “You should have seen your sister. She hollered at Billy and he ran at her. She hid from him behind a tree. We don’t know how to handle Billy like you do, Honey,” my Grandma wrote. No, Grandma, I don’t imagine you two liked to get butted around very much. In a later letter, Grandma went on to write, “Poor Billy is hurt and I know he’ll always be grateful to your Mama.”

Late one evening, Billy got out of his pen yet again. What he didn’t count on was a pack of dogs hanging around on the property. Regardless of his size, Billy couldn’t defend himself against them all. All he could do was run, run, run. He ran past those fragrant roses and up onto my Mama’s back porch. And, he came up on his hind legs and he beat on her glass door. Lucky for him, that glass door didn’t break. Really, really lucky for him.

Out of a deep sleep, my Mama heard the commotion, came to the back door and opened it to see the dogs terrorizing Billy. My Grandma wrote, “Your Mama said she’d never heard such a racket. And she grabbed her broom handle and she went to town on that pack of dogs. She beat them and ran them off the porch and out of the yard.” And, my Mama, so hard-hearted to that Billy goat, called for help for poor Billy, the thief. My Mama...Billy’s hero.

To know my Mama is to know that she’s not quite an animal kind of gal. She loves beautiful flowers and manicured yards minus a destructive Billy goat. But one thing she is, is fair. I give her that.

As my Grandma ended her letter, she wrote, “You can have Billy for your pet, Baby. Me and your Mama ain’t got no use for a goat or its milk. Love, your poor old Grandma.” Well, me either, Grandma, but I sure love you for telling me that story and for remembering me and letting me know each day while I was away. It is a gesture that I’ll treasure forever...my love letters from Grandma. §



*Bridgette Johnson is a PrimeTimes pioneer contributor and a favorite to PT readers. Her writing is sure to encourage us to think of home, of growing up, of parents and siblings and grandparents and old friends and old stories, school days and maybe even old romances. As stated in earlier issues of PrimeTimes, Bridgette is the Horry Home Companion, bringing life alive with tales – not “tall,” but true and heartfelt. Bridgette is a gardener as well as a writer, sowing seeds for blooming and thinking. Previous articles can be found at [coastal.edulifespan](http://coastal.edulifespan), click on PrimeTimes.*

# *PT "Story Teller" Receives Honor*

Muriel O'Tuel, the educator, psychologist, author, motivational speaker and *PrimeTimes* contributor, was one of the "Inspiring Women" recognized at the February awards ceremony of Women in Philanthropy and Leadership.

In previous issues of *PrimeTimes*, O'Tuel has shared with us: "Shifting Gears" about leaving school administration after listening to an inner voice that said there are other interests you have; Muriel allowed as to there are songs to be sung and footprints to leave which can't be done standing still; "Fertilizer Queen" about her experience as a tenth grader and just plain country girl with stringy hair and realizing others got nominated to dream lists – Muriel was just settling in to watch the Tabor City Yam Festival

Parade when opportunity knocked and it was the Tabor City fertilizer man asking her to ride the front fender of the fertilizer truck and "dreams came true for a farm girl." "You Can't Leave Footprints Standing Still" is yet another instance of O'Tuel's dreams and of reaching into the past, growing up in a family with strong work ethics and moral values, and of having the educational experience she had to build a foundation for helping and motivating others.

Having learned about the recognition that was bestowed upon her, *PT* asked Muriel what she shared with the assembled audience. It was not at all surprising that O'Tuel dug into her "bringing up" years and into what fashioned her for what she does and is today. For *PrimeTimes*, it is a bit of good "story telling."

My father completed fifth grade, and his education dream was that all of his seven children would earn a high school diploma. We did, and I was the only one to keep going and going. I am standing on the shoulders of so many who helped me along the way. It was my first grade teacher who changed my map of the world and the culture of my mind. She didn't send me home when I flunked her test the very first day of school. I'd never heard of Humpty Dumpty or his siblings; they didn't ride my school bus. Instead of laughing at my ignorance, my teacher formed a learning partnership with me. I became her target of opportunity and she became mine. This was my first lesson in the power of connection. I did not miss a day of school. I wanted to learn everything, but most of all, I wanted to be just like her. She and many others along my journey have inspired me to carry lanterns of love, hope, encouragement and support to help others find their paths. Most of the action in our life's journey is not played out on Main Street but on the back streets, and in-out-of-the-way places. The only time I made the big time on Main Street was when I was not chosen to ride on the beauty queen float but was offered a ride on a fertilizer truck during the Yam Festival Parade. No matter what you ride on in a parade, the audience is the same. The audience embraced me and cheered me on, like you are doing tonight. We must view our set-backs as set-ups for what can be accomplished. There's always more than one way to make our dreams come true, and you don't have to make big waves to make a difference.

Although my life, like many of yours, has darkened with tragedy and adversity, there are always silver linings. I am thrilled that my son Bryant could join us for this special celebration tonight. Bryant teaches me so much about joyous living, how to nurture and maintain relationships, how to

love and how to laugh. I never dreamed when he was in Title I remedial reading in fourth grade that one day he would be piloting Boeing 777s from Chicago to Tokyo, Shanghai, New Delhi, London and other international destinations. In fact, he flew from Beijing today to be here tonight for this celebration. The most cherished gifts I receive from him are words of affirmation. I'd like to share an excerpt from one of his many letters I keep in my legacy file, but have kept mostly in my heart.

*"Dear Mom... My gratitude to you for preparing me for life is endless. Please know that I will always love you and seek to inspire my three kids the way you inspired me... Your adoring son, Bryant."*

As part of our family tradition when I am visiting them during Christmas, each family member takes a turn sitting on a high stool by the decorated tree, and one by one receives Gifts of Affirming and Inspiring Words from each of the others. One Christmas a few years ago when I was perched on the stool, Bryant looked up in my face and said, "Mama, I can't remember a day in my life that I didn't love you."

"This inspiring women award is the highest and most valued award I have ever received," she said.

*PrimeTimes* says, "Congratulations, Muriel, and keep "leaving footprints" and continuing to share with us."

*Muriel O'Tuel has written "Footprints on the Heart" and "Heartprints Are Forever." She can be reached at Muriel@murielotuel.com, 843-249-6903 or P.O. Box 509, North Myrtle Beach, S.C. 29597.*

## PrimeTimes

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## SMILE-A-WHILE

*PrimeTimes recognizes that there's always room for a smile – occasionally even a laugh out loud – among the serious topics we address. If you have a humorous story about the lighter side of aging, send it in and we may publish it in a future issue of the newsletter.*



An older couple were celebrating their 60th anniversary. They married as childhood sweethearts and moved back to their old neighborhood after retiring. Holding hands they walked back to their old school and found it open and came upon the old desk where Andy had carved, "I love you, Sally."

On their way back home an armored car passed, and a bag fell out. Sally quickly picked it up and they took it home. Sally counted the money and it totaled \$50,000.

Andy said, "We've got to give it back."

Sally said, "Finders keepers." She put the money back in the bag and hid it in the attic.

The next day, two FBI men were in the neighborhood and knocked on their door. "Pardon me, but did either of you find a bag that fell from an armored car yesterday?"

Sally said, "No." Andy said, "She's lying, the bag is in the attic," and Sally quickly said, "Don't believe him, he's getting senile."

The agents turn to Andy and said, "Tell us the story from the beginning."

And Andy replied, "Well, when Sally and I were walking home from school yesterday..."

The first FBI agent turned to his partner saying, "We're outta here!!"